VOLUME 2 , 1975

PREVIEWS OF HEAT AND MASS TRANSFER

A Journal of the International Centre for Heat and Mass Transfer

Rumford Publishing Company, Inc.

PREVIEWS OF HEAT AND MASS TRANSFER

A Journal of the International Centre for Heat and Mass Transfer

EDITORS

E. HAHNE
University of Stuttgart
Stuttgart, F. R. Germany

J. P. HARTNETT
University of Illinois
Chicago Circle, USA

T. F. IRVINE, JR.
State University of New York
Stony Brook, USA

T. MIZUSHINA
Kyoto University
Kyoto, Japan

Z. ZARIĆ
Boris Kidrič Institute
Belgrade, Yugoslavia

A. A. ŽUKAUSKAS
Lithuanian Academy of Sciences
Vilnius, USSR

VOL.
2
1975/76

A publication of the
INTERNATIONAL CENTRE FOR
HEAT AND MASS TRANSFER
Belgrade, Yugoslavia

Institutional Members

American Geophysical Union
American Institute of Chemical Engineers
American Society of Mechanical Engineers
Associazione Termotecnica Italiana
Canadian Society for Chemical Engineering
Canadian Society for Mechanical Engineering
Egyptian Society of Engineers
Indian National Committee for Heat and Mass Transfer
Institution of Chemical Engineers, London
Institution of Engineers of Australia
Institution of Mechanical Engineers, London
Israel Institute of Chemical Engineers
Koninklijk Instituut van Ingenieurs, Netherlands
National Committee for Heat and Mass Transfer of the Academy of Sciences of the USSR
Society of Chemical Engineers of Japan
Societé Française des Thermiciens
Verein Deutscher Ingenieure
Yugoslav Society of Heat Engineers

Yearly Subscription Rates:

Institutions and Libraries: $40.00; outside U.S. and Canada, $46.00. Individuals Subscribers: $20.00; outside U.S. and Canada, $26.00. ICHMT members: $18.00; outside U.S. and Canada, $24.00. Make checks payable to, and send all orders to Rumford Publishing Co., Inc., Box 5370, Chicago, Ill. 60680.

Shipments will be made only upon receipt of remittance. All orders, remittances and communications related to subscriptions, including notifications of change of address, should be sent to *Rumford Publishing Co., Inc.*, Box 5370, Chicago, Ill. 60680. Change of address notices should provide the old as well as the new address, including postal zip code number; an address label from a recent issue should be attached to each notice. Changes will become effective within approximately 20 days. Missing copies will be replaced only if valid claims are received within 90 days from date of mailing. Replacements will not be allowed if the subscriber fails to notify *Rumford Publishing Co., Inc.* of a change of address, or if a copy is misplaced at destination. Requests for refund will be honored only prior to delivery of issue No. 1 of each volume-year.

Printed in the USA. Copyright 1975 by Rumford Publishing Co., Inc.

Published quarterly by:
RUMFORD PUBLISHING CO., INC.

PREVIEWS OF HEAT AND MASS TRANSFER

A Journal of the International Centre for Heat and Mass Transfer

VOLUME 2 OCTOBER, 1975 NUMBER 1

CONTENTS

VOL. 2 1975/7

Message From the Editors i

New Members of the International Centre for Heat and Mass Transfer ii

Periodical Literature* 1

- *A* CONDUCTION AND FINS 1
- *B* CHANNEL FLOW 6
- *C* BOUNDARY LAYER FLOW AND FLOW OVER EXTERNAL SURFACES 10
- *D* FLOW WITH SEPARATED REGIONS AND JETS 13
- *E* TRANSFER MECHANISMS 13
- *F* NATURAL CONVECTION 14
- *G* ROTATING AND VIBRATING SYSTEMS 17
- *H* HEAT AND MASS TRANSFER AND FLAMES 18
- *I* MULTIPHASE SYSTEMS 21
- *J* RADIATION 31
- *K* MEASUREMENT TECHNIQUES 34
- *N* HEAT EXCHANGERS AND HEAT PIPES 36
- *P* GENERAL APPLICATIONS 40
- *Q* THERMOPHYSICAL PROPERTIES 44
- *R* HEAT AND MASS TRANSFER IN THE ENVIRONMENT 46
- *S* ENERGETICS 46
- *T* HEAT TRANSFER IN BIOLOGICAL SYSTEMS 47

Contributing Journals 49

Technical Reports and Publications 51

Books, Proceedings, Special Conferences and Workshops 67

Bibliography on Drag Reduction 70

Newsletter of the Centre 88

Calendar of Coming Events 92

*All papers are grouped under the headings listed. Although a number of papers could have been listed under several headings, this was not done in order to conserve space.

PREVIEWS OF HEAT AND MASS TRANSFER

A Journal of the International Centre for Heat and Mass Transfer

VOLUME 2 | JANUARY, 1976 | NUMBER 2

CONTENTS

Message From the Editors *i*

Periodical Literature* 1

- *A* CONDUCTION AND FINS 1
- *B* CHANNEL FLOW 4
- *C* BOUNDARY LAYER FLOW AND FLOW OVER EXTERNAL SURFACES 8
- *D* FLOW WITH SEPARATED REGIONS AND JETS 10
- *E* TRANSFER MECHANISMS 14
- *F* NATURAL CONVECTION 15
- *G* ROTATING AND VIBRATING SYSTEMS 19
- *H* HEAT AND MASS TRANSFER AND FLAMES 20
- *I* MULTIPHASE SYSTEMS 25
- *J* RADIATION 32
- *K* LIQUID METALS 34
- *M* MEASUREMENT TECHNIQUES 35
- *N* HEAT EXCHANGERS AND HEAT PIPES 37
- *O* HEAT TRANSFER IN POROUS MEDIA AND FLUIDIZED BEDS 38
- *P* GENERAL APPLICATIONS 39
- *Q* THERMOPHYSICAL PROPERTIES 43
- *R* HEAT AND MASS TRANSFER IN THE ENVIRONMENT 45
- *S* ENERGETICS 46
- *T* HEAT TRANSFER IN BIOLOGICAL SYSTEMS 46

Theses and Technical Reports 47

Books, Proceedings, New Journals, Special Conferences and Workshops . 57

Bibliography on Drag Reduction 67

Newsletter of the Centre 81

Calendar of Coming Events 83

Contributing Journals 86

*All papers are grouped under the headings listed. Although a number of papers could have been listed under several headings, this was not done in order to conserve space.

PREVIEWS OF HEAT AND MASS TRANSFER

A Journal of the International Centre for Heat and Mass Transfer

VOLUME 2 | MARCH, 1976 | NUMBER 3

CONTENTS

VOL. 2 1975/7

Message From the Editors *i*

Periodical Literature* 1

- *A* CONDUCTION AND FINS 1
- *B* CHANNEL FLOW 5
- *C* BOUNDARY LAYER FLOW AND FLOW OVER EXTERNAL SURFACES 9
- *D* FLOW WITH SEPARATED REGIONS AND JETS 11
- *E* TRANSFER MECHANISMS 13
- *F* NATURAL CONVECTION 15
- *G* ROTATING AND VIBRATING SYSTEMS 18
- *H* HEAT AND MASS TRANSFER AND FLAMES 19
- *I* MULTIPHASE SYSTEMS 21
- *J* RADIATION 27
- *M* MEASUREMENT TECHNIQUES 28
- *N* HEAT EXCHANGERS AND HEAT PIPES 30
- *O* HEAT TRANSFER IN POROUS MEDIA AND FLUIDIZED BEDS 32
- *P* GENERAL APPLICATIONS 33
- *Q* THERMOPHYSICAL PROPERTIES 36
- *R* HEAT AND MASS TRANSFER IN THE ENVIRONMENT 38
- *S* ENERGETICS 39
- *U* HEAT TRANSFER WITH CHEMICAL REACTIONS 40

Contributing Journals 41

Theses and Technical Reports 43

Books, Proceedings, New Journals, Special Conferences and Workshops . 57

Newsletter of the Centre 66

Calendar of Coming Events 70

*All papers are grouped under the headings listed. Although a number of papers could have been listed under several headings, this was not done in order to conserve space.

PREVIEWS OF HEAT AND MASS TRANSFER

A Journal of the International Centre for Heat and Mass Transfer

VOLUME 2 JULY, 1976 NUMBER 4

CONTENTS

Message From the Editors *i*

Periodical Literature* 1

- *A* CONDUCTION AND FINS 1
- *B* CHANNEL FLOW 3
- *C* BOUNDARY LAYER FLOW AND FLOW OVER EXTERNAL SURFACES 6
- *D* FLOW WITH SEPARATED REGIONS AND JETS 8
- *E* TRANSFER MECHANISMS 9
- *F* NATURAL CONVECTION 10
- *G* ROTATING AND VIBRATING SYSTEMS 14
- *H* HEAT AND MASS TRANSFER AND FLAMES 15
- *I* MULTIPHASE SYSTEMS 18
- *J* RADIATION 29
- *K* LIQUID METALS 30
- *M* MEASUREMENT TECHNIQUES 31
- *N* HEAT EXCHANGERS AND HEAT PIPES 33
- *O* HEAT TRANSFER IN POROUS MEDIA AND FLUIDIZED BEDS 34
- *P* GENERAL APPLICATIONS 35
- *Q* THERMOPHYSICAL PROPERTIES 36
- *R* HEAT AND MASS TRANSFER IN THE ENVIRONMENT 37
- *S* ENERGETICS 38
- *T* HEAT TRANSFER IN BIOLOGICAL SYSTEMS 40
- *U* HEAT TRANSFER WITH CHEMICAL REACTIONS 41

Contributing Journals 42

Theses and Technical Reports 44

Books, Proceedings, New Journals, Special Conferences and Workshops . 72

Bibliography on Drag Reduction 75

Calendar of Coming Events 91

*All papers are grouped under the headings listed. Although a number of papers could have been listed under several headings, this was not done in order to conserve space.